

HAMATEUR CHATTER

The Milwaukee Radio Amateurs Club

July 2010, Volume 18, Issue 7

One of the World's Oldest Continuously Active Radio Amateur Clubs—since 1917

Presidents Letter

Well, here it is, July 2010. The last President's column I wrote was in June 2002. If you were not in the club then, or don't remember, you can see a compilation of my columns from that era on my web page (I won't advertise myself here, my page can be easily found via searching).

As opposed to my other stints as President, I didn't set out to be President this time. Someone nominated me (I don't know who and it's best to leave it at that) and I didn't decline. Notice I didn't say I accepted, I said I didn't decline. No one else was stepping up and in fact no one stepped up for Vice-President (that's a tough job?) or Treasurer. Great.

Regardless of what anyone may think, I don't take a job like this because I think I'm important, or because I think I have the best ideas. I take a job like this because I want to work with and try to help make things good for ALL the membership. Of course if you don't agree with anything I do or say you are certainly free to run for office yourself.

We have a big job ahead for the entire membership. If you check out the last page of the club history (you have downloaded a copy, right?) you see that in the last 12 years (since I became President last) we have lost 31 recent and former members. Add

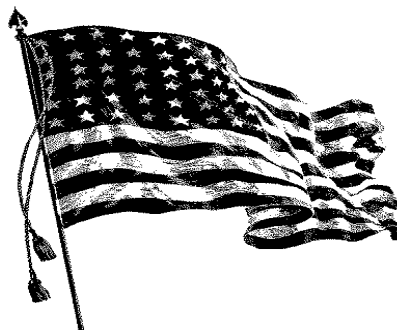
in the members who have further aged during those 12 years and do not drive much, or moved out of town and you can see we have lost close to half of our members, many of whom were quite active.

We have not come close to replacing the void left by them. We need to fix that and soon.

I would like to see the club be a viable entity for many, many more years. If you don't want to lend a hand to help make that happen, you are being incredibly selfish. I want the opportunity to come and enjoy a meeting and get some cheap doughnuts as I get older, just like many of you have. To make some progress along those lines, you may see and hear some things you haven't encountered before. Don't say you haven't been warned.

So until next time, fasten your seatbelts and extinguish all smoking materials, it's going to be a bumpy ride.

Dave WB9BWP



MRAC Officers:

Terms Expiring in 2010

- President – Mark, AB9CD
- V-President-Vacant
- Secretary – Mike, KC9CMT
- Treasurer – Vacant
- Director – Mark, AB9CD
- Director – Dave, KA9WXN

Terms Expiring in 2011

- Director – Al, KC9IJJ
- Director – Hal, KB9OZN
- Director – Dwain, KC9MJJ

The Club Phone Number is: (414) 332-MRAC or

(414) 332- 6 7 2 2

Visit our website at:

www.w9rh.org

Mail correspondence to:

M. R. A. C.

P.O. Box 240545

Milwaukee, WI 53223

Board of Director's Meeting Minutes

Meeting called to order at 6:58 PM.

Present: Mark, AB9CD, Dwain, KC9MJJ, Dave DeFebo, WB9BWP, Brian, K9ICQ, Michael, KC9CMT., & Dave, KA9WXN.

Excused: AL, KC9IJJ, Hal, KB9OZN.

Motion to accept Meeting Minutes as published in the HamChatter Made by Dwain KC9MJJ. Second by Brian, K9ICQ. Accepted by a vote of 6-0

Treasurer Report read by Mark, AB9CD, \$13,509.06 total in General fund as of start of June. Motion to accept treasurers report as read made by: Dave KC9WXN, Seconded by: Brian, K9ICQ Minutes from Treasurer accepted by a 6-0 vote.

PRELIMINARY DISCUSSIONS:

Xmas Party set for Sunday December 5th at Meyer's in Greenfield. Form needed for sign up sheet. Xmas party will be combined with the 145.130 MAARS club

Repeater Report:

Progress is being made on the Rain Report suggestion. Board is keeping track of all issues.

Old Business:

Club Officers: Club still in need of Treasurer. Motion made to discuss drafting of change in by-laws in this regard.

2011 SwapFest: Dave Shank, KA9WXN will head committee. Channel 10/36 auction site at 126th & Townsend in Brookfield put forth by Dave as a possible site. More discussion at August meeting in this regard.

Programs:

June: Report on Field Day effort by Mark, AB9CD.

July & August: No meetings Scheduled.

September—December: No programs scheduled yet.

New Business:

The Chatter: Instead of Email Attachments in 2010, perhaps send Email link to Yahoo Group chatter posting. Link to chatter will be announced during membership meeting. This is still an ongoing project.

Club Project: Search for project that membership can work on and discuss during meetings. Ideas given: De-populate circuit boards, build simple circuits, or build a crystal set during a meeting.

Club Badges: The Club Badges will be yellow on a blue background with the choice of backing closure. Badges will perhaps be offered on the clubs Membership form. Badges are optional. Costs will increase from \$6 to \$8 in January 2011.

Field Day: Still looking for Field day Captain. FD Captain will be given time at each club meeting to discuss and coordinate FD activities. Pioneer Village paid for year 2009.

Change in By-Laws: President of board of directors will be responsible for assigning MRAC Officers positions from the members of the Board of Directors. Formal change in by-Laws to be presented during August Board Meeting. Original idea proposed by Dave DeFebo, WB9BWP.

Club Structure: N3FJP membership program may be adopted by the club to track membership instead of a spreadsheet. VEC group to be asked to pay a share of the phone costs to the club.

Motion to adjourn at 8:02 PM. Motion made by Dave. KC9WXN, Second by Brian K9ICQ. Passed without dissent by a vote of 6-0.

Room returned to condition as found upon arrival.

Respectfully submitted,
Michael, KC9CMT

News from Wisconsin Ares/Races Network

FCC Okays Employee Participation in Emergency Drills

Moving with unaccustomed speed, the FCC adopted a Report and Order on July 14, allowing hams who are employed by both government agencies and non-government agencies such as hospitals, to participate in emergency and disaster drills on behalf of their employers. The ruling was based on a Notice of Proposed Rule Making, WP-10-72, issued this past March, in response to petitions arising from a strict interpretation by the FCC's Enforcement Bureau of the prohibition on amateurs communicating on behalf of their employers. The decision came just more than a month after the reply comment deadline.

The ruling added a new paragraph to Section 97.113(a)(3) of the FCC rules, which reads as follows:

(i) A station licensee or control station operator may participate on behalf of an employer in an emergency preparedness or disaster readiness test or drill, limited to the duration and scope of such test or drill, and operational testing immediately prior to such test or drill. Tests or drills that are not government-sponsored are limited to a total time of one hour per week; except that no more than twice in any calendar year, they may be conducted for a period not to exceed 72 hours.

There is no specific effective date given in the Report and Order, so it will presumably become effective upon publication in the Federal Register. The complete text of the report and order may be accessed online at < http://www.fcc.gov/Daily_Releases/Daily_Business/2010/db0714/FCC-10-124A1.pdf >.

Membership Meeting Minutes

General Membership assembly called at 7:02pm.

Signup sheet & Club badge order sheet form was circulated among present members.

Introductions: Mic passed & Buzz Talk, KC9IJJ reports he will be setting up a APRS beacon of the field day sites.

Discussion of Field Day effort given by Mark, AB9CD. Club this year will have a 3A designation. Station operation times with year will need advance booking. So far no one has signed up.

Membership Meeting: Called to order at 7:42pm.

Membership meeting minutes from May accepted as published in the HamChatter, a motion to accept the minutes was made by Brian, K9LCQ, seconded by AL, KC9IJJ. Motion carried by voice vote without dissent.

Treasurers' report for June read by Mark, AB9CD. Motion to accept Treasurers' report as read made by Jerry K9FI, seconded by Poncho KA9OFA. Motion to accept carried by voice vote without dissent.

Comment made that APRS has been interfering with the Club repeater.

Mark, AB9CD initiated a Chatter Quiz during this meeting, prizes were donated. Membership seemed to like idea. Ken Han and Mark, AB9CD have been going to Great Lakes Naval base to give VEC testing sessions.

Chatter Question Quiz Winners: Poncho, KA9OFA, Tom N9UFJ & Michael, KC9CMT.

Short Speech given by outgoing President, Mark, AB9CD. Certificates of Appreciation given out by Mark. Recipients: Tom N9UFL, Dave DeFebo WB9BWP & Michael, KC9CMT as recognition for all the work they have done for the Club during Mark's administration.

New President, Dave DeFebo, WB9BWP gave an introductory speech, including some club history. Discussed some of the changes he wants to bring to the club.

Motion to adjourn meeting at 8:30 pm made by Mark AB9CD, Seconded by Dave DeFebo WB9BWP. Passed by voice vote without dissent.

**Club Repeater,
145.390Mhz Minus Offset
(127.3 PL)**

Next Regular Meeting

The next meeting will be September 30rd at 7:00PM. We meet in the Fellowship Hall of Redemption Lutheran Church, 4057 N Mayfair Road. Use the south entrance.

Please do not call the church for information!

Club Nets

Please check in to our nets on Friday evenings.

Our ten meter SSB net is at **8:30 p.m. at 28.490 MHz USB.**

Our two meter FM net follows at 9:00 p.m. on our repeater at **145.390 MHz** with a minus offset and a **PL of 127.3 Hz.**

You don't have to be a member of the club to join us!

Visit our website at: www.w9rh.org

Or phone (414) 332-MRAC or 332 - 6722

Chatter Deadline

The **DEADLINE** for items to be published in the **Chatter** is the 15th of each month. If you have anything (announcements, stories, articles, photos, projects) for the Chatter, please get it to me before then.

You may contact me or Submit articles and materials by e-mail at: Kc9cmt@earthlink.net

or by Post at:

Michael B. Harris

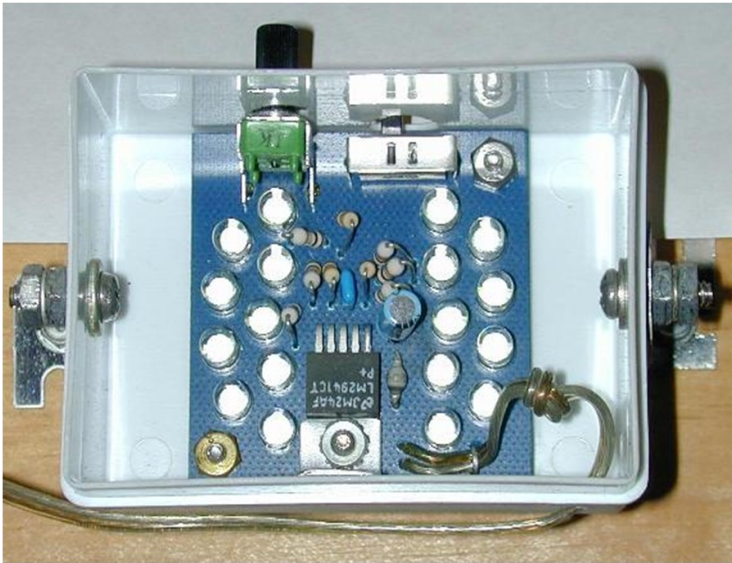
807 Nicholson RD

South Milwaukee, WI 53172-1447

Experimenter's Bench

18 LED dimmable LED lamp

(C) G. Forrest Cook March 5, 2007



Specifications

Power Requirements:

Input Voltage: 10.5-16V DC

Input Current: 11-150mA at 12VDC

Theory

The 12V DC input voltage is routed through the 1A fuse and the on/off switch. The 1N4001 diode acts as a crowbar device. If reverse polarity is applied, the fuse will blow and the rest of the circuitry will be protected. Power is sent to the LM2941CT voltage regulator IC. The regulator is wired to produce a voltage range from 5.5V (dim) to 8.3V (bright). The 4.7K resistor across the 1K brightness adjustment potentiometer produces a non-linear brightness adjustment to compensate for the eye's logarithmic brightness perception response. The LEDs are organized in six series groups of three with a 24 ohm current limiting resistor on each group. This arrangement limits the maximum current through each LED group to around 20mA.

Use

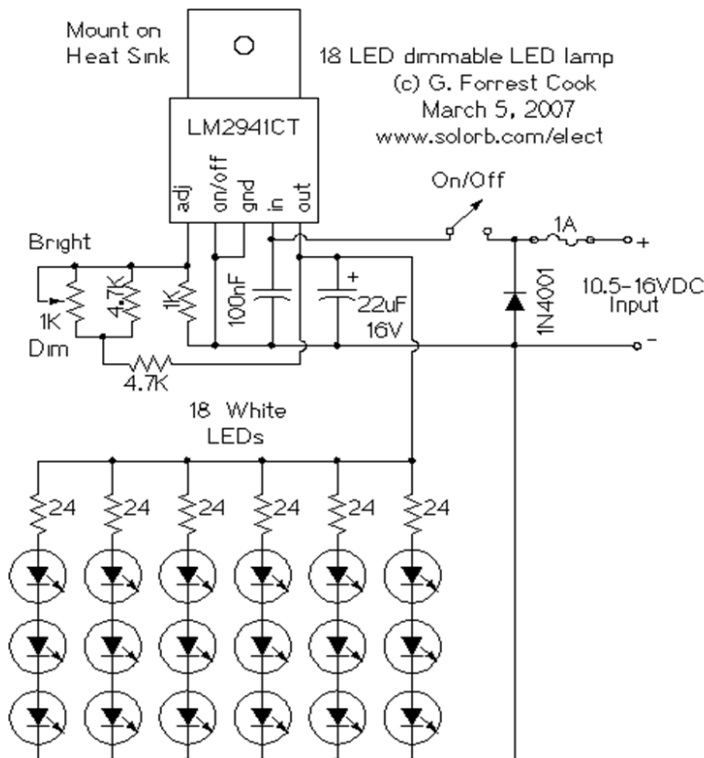
Connect the DC input terminals to a 12V source, such as a 12V lead acid battery. Be sure to observe the correct polarity. Turn the power switch on and adjust the brightness adjustment for the desired brightness.

Parts

- 1X LM2941CT low-dropout voltage regulator
- 1X 1A DC rated fuse
- 1X DC switch
- 1X 1N4001 diode
- 2X 1K 1/4W resistors
- 2X 4.7K 1/4W resistors
- 6X 24 ohm 1/4W resistors
- 1X 1K linear potentiometer
- 18X 5mm white LEDs, 20mA max
- 1X 22uF 16V electrolytic capacitor
- 1X 100nF 25V monoblock capacitor

Power this project from sunlight with a [CirKits](#) solar power circuit board kit.

Reprinted with permission of Author.



18 LED dimmable LED lamp

Introduction

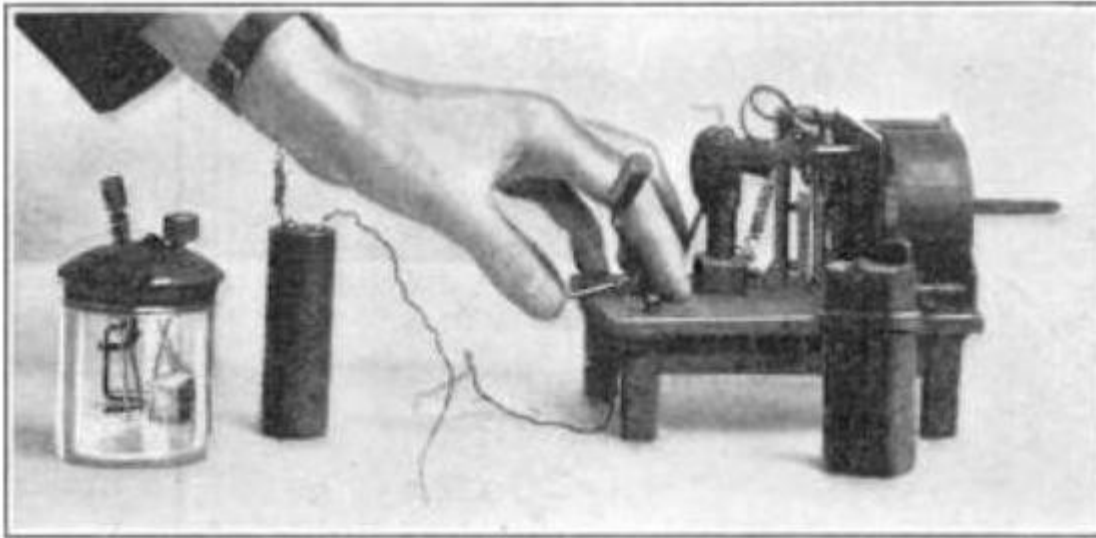
This circuit is a dimmable white LED lamp array with 18 LEDs. The lamp brightness is regulated as long as the input voltage is above 10.5V. A low-dropout analog voltage regulator is used for a simple and relatively efficient design. The lamp produces enough light to use as a reading lamp or a small work lamp.

NEW DUES POLICY

New members paying dues on or after our September meeting will be considered paid in full for the following year.

In the photograph, Hughes' simple receiver is on the left, and his transmitter on the right. Also, contrary to what this article states, Hughes was not born in the United States--he was actually born in London, although his family moved to the U.S. when he was seven.

Popular Science Monthly, August, 1922, page 57:



A carbon microphone detector, battery, and crude automatic transmitter make up the first wireless outfit

World's First Wireless Outfit Found in London Tenement

THE crude but sensitive instruments with which David Hughes first discovered wireless waves have been unearthed in a London, England, tenement and transferred to a place of honor in the South Kensington Museum. Hughes experimented with electric waves long before Marconi, but the latter gained the distinction of being the discoverer because he was the first to recognize them as ether waves.

The newly found instruments consist of a spring wound device that sent out electric impulses at regular intervals, and a carbon microphone used by Hughes as the detector. History tells us that during an experiment in 1879 Hughes started the transmitter and then walked slowly away from his laboratory with the receiver in his hand, noting how far the sounds could be detected. At times he was able to hear them 500 feet distant.

Although Hughes was an extremely able scientist, he lived and worked in a frugal manner. Most of his instruments were made up of odds and ends, such as pins, needles, scraps of wire, and pieces of metal utensils. Yet even with these he was able to produce delicate mechanisms that were the forerunners of those in operation today. The carbon grain transmitter was first studied by Hughes and a widely used electrical device known as an induction balance was invented by him. Later he published a theory of magnetism that brought him distinction.

Hughes was born in America, where he lived during his early years; but after inventing a printing telegraph he moved to England and the Continent. There he tried for many years to have the machine approved by foreign telegraph firms. Finally, after being accepted by the French government, it was adopted by all the leading companies and brought wealth to the inventor.

MRAC Field Day Summary

Operated 2A
 Operators: 3
 CW contacts: 186
 PH contacts: 120
 Total QSO points: 492
 Bonus points: 450
 200 Emergency power
 100 Info table
 100 Public location
 50 Electronic submission
 Claimed score: 1434

How Solar Powered Generators Work

A domestic solar powered generator represents a cost-efficient and useful device that can be built and used by homeowners to run lights, as well as to run all their electrical gadgets. Solar powered generators are similar to any other generators; except for they use energy from the sun to generate power.

Solar powered generators consist of the following elements:

- Solar panels (interconnected solar cells);
- An inverter (power converter);

A deep cycle battery.

These elements work in conjunction with each other to gather, use and distribute the solar energy. If you wish to obtain more power from your system, opt for quality silicon-based solar panels with high power output, such as monocrystalline or polycrystalline silicon panels. The more panels you use (assembled in parallel), the more power you can expect to obtain with your system.

Utilizing a Solar Powered Generator

Solar generators are connected to the electrical circuits. At the time of a power failure, a solar powered generator would start supplying your home with power. While some people use these generators full-time, other individuals choose to use their generator solely at the time of a power outage, such as for illumination, heating, and refrigeration.

Mechanism of Action

Solar panels, which supply the generator with electricity, should be mounted in the sunniest area that you can find (rooftop, yard, etc.). In order to operate efficiently, the panels need to be tilted at around a 20-50 degree angle. Once properly mounted, the solar panels will start gathering energy from sunlight and transform it into DC power. The inverter (power converter) will transform the DC current into AC electricity. The generated solar power can be saved for future use (stored in a large battery). The DC current allows non-stop performance of the solar generator. In the periods of an interrupted power supply (e.g., a storm, hurricane, heavy snowfall, etc.), a solar power generator would be very useful to run any electric gadgets in your home.

Benefits of Solar Power Generators

Solar energy uses the sunlight, and hence it is a pure and environmental friendly energy. There's no pollution with solar powered generators. Therefore, employing a solar powered generator helps to keep the environment free from pollution.

A solar powered generator can be recharged daily by simply keeping the panels in the sun. In case of a temporary power outage, you will not have to be concerned about the power supply from your utility company since you can comfortably use your solar generator. You can use solar generators to run appliances in your home, and even in your office.

Low maintenance costs of such generators make them an appealing choice. Once it is installed, it will last for many years with little maintenance needed. After you invest in the initial installation, you will not have to face any extra costs. So, if you're thinking of a cost-efficient solution, it would be wise to opt for a solar power generator.

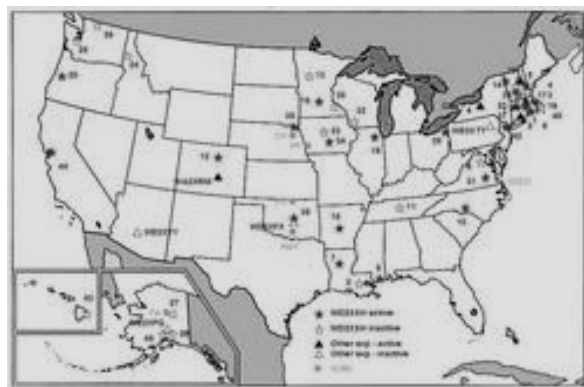
Drawbacks of Solar Generators

Any solar powered generator will only charge or recharge in the presence of sunlight. Therefore, on a cloudy, rainy or snowy day, you cannot recharge such generators. Furthermore, you obviously cannot charge the generator at night.

ARRL Weekly Newsletter Articles

ARRL's 500 kHz Experiment Shows Slight Growth

In the quarterly report for the ARRL's 500 kHz Experimental Station for the period ending May 2010, Experiment Coordinator Fritz Raab, W1FR, reported that since the experiment began in late 2006, 20 of the 32 participating stations are currently active. The FCC's Office of Engineering and Technology granted the WD2XSH experimental license to the ARRL in September of that year. "Our present license grant expires on August 1," Raab said. "We are planning to do an 'as-is' renewal this month." Raab said that during the quarter, one additional QSO was made, bringing the total number of WD2XSH contacts to 405. The WD2XSH Web site has received 511 reports since the end of February, bringing the total number of reports to 11,234 since the beginning of the issuance of the experimental license. Raab said more than 60,000 hours of activity has been logged on the Web site since September 2006. Stations do not have to be members of the experimental team to post reception reports. Read more [here](#).



Locations and status of the 500 kHz experimental stations in the United States. Click [here](#) for a larger image.

Testing & Local Swapfests

VE Testing

Next VE Testing on July 31st 10am-noon at:

Amateur Electronic Supply 5720 W. Good Hope Rd. Milwaukee, WI 53223

Area Swapfests

Racine Megacycle Freefest 2010

August 14, 2010

Location: Fireman's Park
9600 Charles Street
Sturtevant, WI

Website: <http://www.w9udu.org>

Sponsor: Racine Megacycle Club

Type: ARRL Hamfest

Talk-In: 147.270 FM Repeater (PL 127.3)

Public Contact: Robert Frederiksen , KB9ZAF
4455 Spring Street Racine, WI 53405

Phone: 414-815-6649

Email: kb9zaf@arrl.net

Working Committees

Field Day

- Open

FM Simplex Contest

- Joe – N9UX
- Jeff-K9VS
- Dave-WA9WXN
- Brian-K9LCQ
- Sherm-KB9Q
- Mark-AB9CD

Ticket drum and drawing

- Tom – N9UFJ
- Jackie – No Call

Newsletter Editor

- Michael-KC9CMT

Webmaster

- Joe Schwartz—N9UX

Refreshments

- Michael – KC9CMT



Membership Information

The Hamateur Chatter is the newsletter of MRAC (Milwaukee Radio Amateurs' Club), a not for profit organization for the advancement of amateur radio and the maintenance of fraternalism and a high standard of conduct. MRAC Membership dues are \$17.00 per year and run on a calendar year starting January 1st. MRAC general membership meetings are normally held at 7:00PM the last Thursday of the month except for November when Thanksgiving falls on the last Thursday when the meeting moves forward 1 week to the 3rd Thursday and December, when the Christmas dinner takes the place of a regular meeting. Club Contact Information Our website address <http://www.w9rh.org>

Telephone (414) 332-MRAC (6722)

Address correspondence to:

MRAC PO Box 070695,

Milwaukee WI 53207-0695.

Email may be sent to

w9rh@arrl.net

Our YAHOO newsgroup:

<http://groups.yahoo.com/group/MRAC-W9RH/>

CLUB NETS:

- Our Six Meter SSB net is Thursday at 8:00PM on 50.160 MHz USB
- Our Ten Meter SSB net is Friday at 8:00PM on 28.490 MHz \pm 5 KHz USB.
- Our Two Meter FM net follows the Ten meter net at 9:00PM on our repeater at 145.390MHz - offset (PL 127.3)

Milwaukee Area Nets

Mon.8:00 PM 3.994 Tech Net

Mon.8:00 PM 146.865- ARES Walworth ARRL News Line

Mon.8:00 PM 146.445 Emergency Net

Mon.8:00 PM 146.865- ARES Net Walworth

Mon.8:45 PM 147.165- ARRL Audio News

Mon. 9:15 PM 444.125+ Waukesha ARES Net

Mon.9:00 PM 147.165- Milwaukee County ARES Net

Tue.9:00 AM 50.160 6 . Mtr 2nd Shifter's Net

Tue. 7:00 PM 145.130 MAARS Trivia Net

Tue. 8:00 PM 7.035 A.F.A.R. (CW)

Wed. 8:00 PM 145.130 MAARS Amateur Radio Newsline

Wed. 9:00 PM 145.130 MAARS IRLP SwapNet d FM-38 Repeaters (IRLP 9624)

Thur. 8:00 PM 50.160, 6 Mtr SSB Net

Thur. 9:00 PM 146.910 Computer Net

Fri. 8:30 PM 28.490 MRAC W9RH 10 Mtr Net SSB

Fri. 9:00 PM 145.390 W9RH 2 Mtr. FM Net

Sat. 9:00 PM 146.910 Saturday Night Fun Net

Sun 8:30 AM 3.985 QCWA (Chapter. 55) SSB Net

Sun 9:00 AM 145.565 X-Country Simplex Group

Sun 8:00 PM 146.91 Information Net

Sun 8:00 PM 28.365 10/10 International Net (SSB)

Sun 9:00 PM 146.91 Swap Net

2 meter repeaters are offset by 600KHz - - 70 centimeter repeaters are offset by 5 MHz

SSB frequencies below 20 meters are LSB and for 20 mtrs and above are USB.

HEAT WAVES

...EXTREME HEAT IS THE NUMBER ONE WEATHER-RELATED KILLER... EXTREME HEAT AND HUMIDITY ASSOCIATED WITH HEAT WAVES KILL OVER 200 PEOPLE A YEAR IN THE UNITED STATES. ALTHOUGH MOSTLY KNOWN FOR ITS COLD AND SNOWY WINTERS THE BADGER STATE OF WISCONSIN IS NOT IMMUNE FROM THE TRAGEDIES CAUSED BY HEAT WAVES. ON AVERAGE... ABOUT 5 PEOPLE DIE EACH SUMMER WHEN HEAT WAS THE PRIMARY CAUSE OF DEATH.

...WISCONSIN/S KILLER HEAT WAVES IN 1995... ONE OF THE MOST MEMORABLE HEAT WAVES IN RECENT HISTORY OCCURRED IN 1995 WHEN TWO MAJOR HEAT WAVES AFFECTED MOST OF WISCONSIN. THAT SUMMER 154 PEOPLE DIED OF HEAT AND HUMIDITY ALONG WITH APPROXIMATELY 400 HEAT-RELATED ILLNESSES. THE 1995 SUMMER HEAT WAVES HOLD THE RECORD AS THE NUMBER ONE WEATHER-RELATED EVENT IN WISCONSIN SINCE IT BECAME A STATE IN 1848. MOST DEATHS OCCURRED IN THE MAJOR URBAN CITIES IN SOUTHEAST WISCONSIN. AS IN EVERY STATE HIT BY THE HEAT WAVE THAT YEAR...THE ELDERLY AND YOUNG AGE GROUPS WERE HIT THE HARDEST.

FOR THE 20-YEAR PERIOD OF 1988-2007...HEAT WAVES CLAIMED AN AVERAGE OF 152 PEOPLE EACH YEAR ACROSS THE UNITED STATES. THIS IS MORE THAN ALL OF THE OTHER INDIVIDUAL NATURAL DISASTERS. FOR MORE INFORMATION ABOUT HEAT WAVES CHECK OUT THE NATIONAL WEATHER SERVICE SITE ON HEAT WAVES:

<http://www.nws.noaa.gov/om/heat/index.shtml>

...HEAT ADVISORIES AND EXCESSIVE HEAT WARNINGS... THE NATIONAL WEATHER SERVICE WILL ISSUE A HEAT ADVISORY FOR SOUTH CENTRAL OR SOUTHEAST WISCONSIN WHEN IT EXPECTS THE DAYTIME HEAT INDEX VALUES TO BE 105 TO 110 FOR 3 HOURS OR MORE...WHILE NIGHTTIME HEAT INDEX VALUES EQUAL OR EXCEED 75 FOR ANY 24 HOUR PERIOD. AN EXCESSIVE HEAT WARNING WILL BE ISSUED FOR THE SAME CONDITIONS...